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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,661	05/17/2006	Michael Prosser	26786-520-NATL	9367
35437 7590 04/19/2007 MINTZ LEVIN COHN FERRIS GLOVSKY & POPEO 666 THIRD AVENUE NEW YORK, NY 10017			EXAMINER YANG, ANDREW	
			ART UNIT	PAPER NUMBER
			3733	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,661	<b>Applicant(s)</b> PROSSER, MICHAEL	
	<b>Examiner</b> Andrew Yang	<b>Art Unit</b> 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

It is noted that this application appears to claim subject matter disclosed in prior Application No. PCT/US04/40244, filed 12/02/2004 and Application No. 60/526241, filed 12/02/2003. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of

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any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "36" and "37" have both been used to designate slots. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The disclosure is objected to because of the following informalities:

On pages 5-9 of the disclosure, the transition between pages is unclear. It appears that the sentences between pages are not complete.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7, 16, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Boriani et al (U.S. Patent Number 6159211)

Boriani et al. discloses a spinal cage 10 with a rigid body 12 made of an inert material (Column 3, Line 34) and formed in an annular configuration (Figure 1). The body 12 has opposed upper 14 and lower 16 surfaces and an annular side wall 18 extending between the surfaces. A plurality of ridges 24, 25 project outward from the upper 14 and lower 16 surfaces and the annular sidewall 18 has a plurality of spaced apertures 22. Ridges 24 run in an anterior/posterior direction and ridges 25 run in a medial/lateral direction making them angularly offset. A transverse 28 bisects the central opening 20, thus forming a pair of axially aligned openings, which can be packed with bone graft material (Column 4, Lines 11-13).

Claims 16 and 22 rejected under 35 U.S.C. 102(b) as being anticipated by Brantigan (U.S. Patent No. 5192327).

Brantigan discloses a spinal cage implant 30 made of rigid biologically acceptable and inactive materials (Column 4, Lines 1-5). The implant 30 has an annular body in the shape of an oval (Figure 6) with upper and lower surfaces 11c and an annular sidewall 31 extending therebetween. A plurality of raised ridges 12 are on the perimeter surface of upper and lower surfaces and a plurality of openings 13, 11e

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on the annular sidewall 31. A transverse wall 33 extends across the cage and defines two axially aligned openings for receiving bone graft material (Column 5, Lines 40-44).

Claims 3-6, 8-10-19, 21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by White et al. (U.S. Publication No. 2004/0073314).

White et al. discloses a spinal cage assembly 400 made of a biologically inert material (Paragraph 53) in the shape of a rigid annular cage (Figure 15). With further reference to Figure 15, the cage has upper and lower surfaces extending about the perimeter of the cage and an annular sidewall extending therebetween. Traverse inner wall 424, 426 extends across the cage. Grooves 414, 415, 416 are formed on the perimeter surfaces that form raised projecting ridges and a plurality of openings 428, 430, 431 are formed on the annular sidewall. A pair of axially aligned openings 418, 420 extend through the cage 400 that can be packed with bone growth material (Paragraph 92). With regard to a plurality of indexing members on the perimeter surfaces of the cage, it is considered that the surfaces of transverse wall 424 and sidewall 406 define a surface which aperture 418 extends through creating an indexing member on a surface substantially on the perimeter of the cage. The same is considered for transverse wall 426, sidewall 408, and aperture 420. The indexing members cooperate with indexing members in the form of pins 316-319 on the spacing element 310. Spacing element 310 axially aligning and securing cage assembly 400 to an identical second cage assembly 401 (Figure 13). The spacing element has an annular configuration (Figure 13) and a transverse portion with resilient attachment members 320, 321 on opposite ends of the spacer that resist axial movement when

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secured to the cage assemblies (Paragraph 89). Furthermore, it is considered that the cage assemblies and spacing element form a substantially half-moon shape or kidney shape (Figures 13-21).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Publication No. 2004/0073314).

White et al. discloses the claimed invention except for a pair of resilient members on opposite sides of the spacer element. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of White et al with a pair of resilient members on opposite sides of the spacer element, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Publication No. 2004/0073314) in view of Brantigan (U.S. Patent No. 5192327).

White et al. disclose the invention as claimed except for the cage assembly having an oval configuration. Brantigan teaches a spinal cage assembly with an oval shape to conform with the general outline perimeter of the vertebrae (Column 2, Lines



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1-4). It would have been obvious to one skilled in the art at the time the invention was made to construct the device of White et al. with an oval shape in view of Brantigan so that the device would have a shape that conforms to the general outline perimeter of the vertebrae.

### ***Conclusion***

Any inquiry concerning this communication from the examiner should be directed to Andrew Yang whose telephone number is 571-272-3472. The examiner can normally be reached Monday-Friday 7:30 am – 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful the examiner's supervisor, Eduardo Robert can be reached at 571-272-4719. The fax number for the organization where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private Pair only. For More information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (USA OR CANADA) or 571-272-1000.

A.Y.

4/14/2007

  
EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER